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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,921	08/06/2001	Masayuki Endo	740819-595	8577
22204	7590	09/10/2004	EXAMINER	
NIXON PEABODY, LLP 401 9TH STREET, NW SUITE 900 WASHINGTON, DC 20004-2128			NGUYEN, LAM S	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/921,921

**Applicant(s)**

ENDO ET AL.

**Examiner**

LAM S NGUYEN

**Art Unit**

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4,5 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4,5 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/13/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

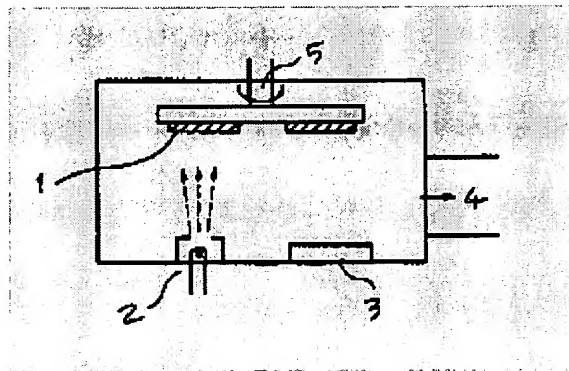
1. Claims 4, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kazuoki (JP 02-128343).

Kazuoki discloses an outgas collection method comprising the steps of:

holding, within an exposure chamber under vacuum (FIG. 1 and Abstract: a vacuum vessel), a substrate on which surface a resist film is formed (FIG. 1, element 1);

irradiating said resist film with an electron beam (FIG. 1, element 2 and Abstract);

and



collecting an outgas released from said resist film when irradiated with said electron beam to prevent the outgas from absorbing the energy of the electron beam (Abstract: the substrate 1 consisting of the matter is irradiated with the electron beam in the vacuum film forming device to release the gasses and the gasses are collected through the pump 4).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5, 6, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuoki (JP 02-128343) in view of Takashi et al. (JP 59157566).

Kazuoki discloses the claimed invention as discussed above except the comprising of the step that analyzing a constituent of said collected outgas released from said resist film when irradiated with said electron beam.

Takashi et al. disclose a device for analyzing a gas released when a sample is irradiated by an electron beam in a vacuum condition (Abstract), wherein the released gas is collected and analyzed by a high speed gas analyzer (Abstract and FIG. 1, element 16) to determine information about the corresponding substances in the sample by comparing a measured value with a calibration value (Abstract).

Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to modify the method for collecting the outgas disclosed by Kazouki such that including the step of analyzing the collected gas as disclosed by Takashi et al. The motivation of doing so is to obtain the corresponding substances contained in the sample or substrate in accordance to the released gases by comparing a measured value with a calibration value as taught by Takashi et al. (Abstract).

***Response to Arguments***

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Applicant's arguments filed 07/13/2004 have been fully considered but they are not persuasive.

The applicants' argument is not persuasive. The applicants argued that the cited prior art fails to disclose a resist film and an electron beam aligner for using in lithography. As discussed in the Final Office Action, the cited prior art teaches irradiating the electron beam on a substrate having a protective film that is considered as a resist film. In addition, claims 4-6 do not contain the phrase "an electron beam aligner". Regarding to claims 8 and 10, even though the claim preamble is about "an electron beam aligner", the body of the claims fully and intrinsically sets forth all of the limitations of the claimed invention that is collecting and analyzing gas released from the resist film during the irradiation, which does not relate to the alignment of an electron beam. Thus, in this case, the preamble merely states only the purpose or intended use of the invention so the preamble is not considered as a limitation and is of no significance to claim construction (See MPEP 2111.02).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN  
September 6, 2004



HAI PHAM  
PRIMARY EXAMINER